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MERED, HABTE	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/064,251	LI ET AL.	
	Examiner	Art Unit	
	HABTE MERED	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/30/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1-20 are pending. Claims 1, 6, and 10 are the base independent claims. All of the base independent claims are merely amended to overcome previous 101 rejections.

2. The amendment filed on 12/30/08 has been entered and fully considered.

Response to Arguments

3. Applicants' amendment to all of the independent claims has overcome previous 101 rejections made in the last Office Action. The claims now recite steps that are statutory under 101 as they are associated with a particular machine (a predetermined node in a mesh network) and there is a transformation of the node from being part of a service path to a restoration path and again back to a service path. Therefore the 101 rejections are withdrawn.

4. Applicant in the Remarks on page 12 argues with respect to claim 1, that the citation of Voelker Column 5, Lines 56-67 was used by Examiner to teach the limitation beginning from line 11 of claim 1 that recites "....., sending a release request message..." is improper because the Examiner indicated sending a release request message from the originating node to the other nodes is inherent when the originating node releases the link or connection. Applicant is indicating the inherency is improper

as the support cited by Examiner in Column 3, Lines 31-35 do not support Examiner's position on sending a release request message being inherent.

Examiner agrees with Applicant's position that indeed when releasing a link or a connection sending a release request message along the connection in this case on the restoration path is not inherent. Given this the Examiner agrees with Applicant that the current instant Office Action should not be final and hence the instant Office Action is non-final.

However, Examiner still believes Voelker teaches sending a release request message to other nodes on the restoration path when releasing the connection and cites from Voelker Column 6, Lines 4-10. Voelker in Column 6, Lines 4-10 clearly teaches in either a connection/service path or a restoration/contingent path consisting several nodes, when the originating node releases a connection it updates its own table and causes the other nodes on the connection to update link data indicating the release of the connection. The only way the other nodes directly or indirectly connected to the originating node will know that the connection is released by the originating node is by the originating node or a neighboring node notifying one of the nodes on the connection status and that notification being pumped down all nodes sequentially and each node decrementing link bandwidth by X representing the released connection. This is evidenced by Fig. 5 step 405 that release request message decrementing bandwidth at each node in the contingent path to be released is done by a traveling or propagating message going from each node to another node hop by hop. This is further evidenced in Fig. 6 step 510 where a message to release resources is cranked back to the end

node and is known in the art as crankback. Please see also Column 10, Lines 36-37 and see Fig. 4 steps 302, 309 showing a support for end to end communication sending message for path establishment and release node by node.

5. In the Remarks, on page 11, in Section B, Applicant argues that the last Office Action asserts, with no legal basis whatsoever, regarding claim 1, "reciting an element is 'adopted to' [sic] perform a function is not a positive limitation but only requires the ability to so perform. The phrase 'adopted to' [sic] does not constitute a limitation in any patentable state)." Applicant then states that this assertion is traversed as utterly lacking any legal basis whatsoever.

Examiner respectfully disagrees with Applicant's position for Examiner to state that the limitation in claim 1 reciting "... release request adopted to cause…" is not a positive limitation as it only requires the ability to so perform and does not constitute a limitation in any patentable state lacks any legal basis. Examiner's position is based on **MPEP Section 2111.4[R-3]** which effectively states that claim scope is not limited by claim languages such as "adapted to" that suggests or makes optional but does not require steps to be performed, by claim language that does not limit a claim to a particular structure. Applicant cannot simply dismiss the requirement of MPEP and needs to show why the optional limitations of claim 1 such as the one reciting "... release request adopted to cause…" is not subject to MPEP Section 2111.4[R-3] rule.

6. Examiner has reviewed Applicant's Remarks in its entirety and Section A describes Legal standards such as KSR and In Graham v. John Deere Co. as being not

met with claims 1-6 and 16-20. However Applicant fails to clear present where an error occurred in the obviousness rejections of claims 1-5 and 16-20. Applicant has not indicated why the motivations indicated are inadequate or why the suggested modified combination will not work. Hence it is still the position of the Examiner that proper motivation was provided and the suggested modified combination work as claimed in claim 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 1-5 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (US Pub. No. 2001/0032271 A1) in view of Voelker (US 5, 856, 981) and Kini et al (Sriganesh Kini, Murali Kodialam, T.V. Lakshman, Curtis Villamizar, "ReSerVation Protocol with Traffic Engineering extensions. Extension for Label Switched Path restoration", IETF, April 2001).

Regarding **claim 1**, Allen discloses a method for signaling in a mesh telecommunication network **(See Figure 1)** comprising the steps of:

receiving a request to establish a label switched path through the mesh network **(See Paragraph 24 describes such a request to establish a label switched path – see lines 6-8 in paragraph 24)**; computing a service path and a restoration path **(See Paragraph 25 discussing pre-determined paths necessitating path computation – see paragraph 25, Line 11 discussing pre-determined paths across network 100 and in paragraph 25 and the computed (i.e. pre-determined) path is stored in database as shown in paragraph 26 line 4)**; (iii) sending a label switched path request along the restoration path and wherein the label switched path request includes service path information**. (See Paragraph 30 and 38 where the service path information is the route digest included in the path message – paragraph 38 lines 1-5 show a route digest (i.e. service path info) included in the path establishment message and paragraph 34 defines a route digest)**

Allen fails to teach requesting reservation of shared resources along the restoration path without allocating the shared resources and responsive to a determination that the label switched path has been switched to the service path, sending a release request to a plurality of nodes along the restoration path, the release request adopted to cause a release of a restoration path resource allocation, the label switched path switched responsive to a repair of a failure at least one component comprised by the service path, the release request adopted to cause the release of the restoration path resource allocation without causing a release of reserved resources associated with the restoration path and without causing a removal of the restoration path.

Voelker discloses requesting reservation of shared resources along the restoration path without allocating the shared resources and responsive to a determination that the label switched path has been switched to the service path **(Voelker begins in Column 2, lines 1-3 to teach that pre-determined and calculated restoration path is stored and refers to restoration path as contingent path. Further in Column 2, lines 4-10 and Column 3, Lines 36-38 that he shows the contingent path is made up from links shared by different connections. Finally Voelker in Columns 2, Lines 14-45, Column 7, Lines 12-25 and Column 7, Lines 45-50 that a request is made for reserving shared resources in the contingent path without allocating resources)**,

sending a release request to a plurality of nodes along the restoration path, the release request **(i.e. Fig. 5 step 405 traveling message decrementing bandwidth)** adopted to **(Based on MPEP Section 2111.4[R-3] it is not a positive recitation and Voelker's traveling message can be adopted to do the same thing)** cause a release of a restoration path resource allocation **(i.e. Column 5, Line 59 reroute path are released)**, the label switched path switched responsive to a repair of a failure at least one component comprised by the service path **(See Column 5, Lines 56-67 – responsive to a repair of a failure the original connection is re-established and the re-routed (i.e. restoration path) are released. Further Voelker in Column 6, Lines 4-10 clearly teaches in either a connection/service path or a restoration/contingent/re-route path consisting several nodes, when the originating node releases a connection it updates its own table and causes the**

other nodes on the connection to update link data indicating the release of the connection. The nodes on the path to be released get a message requesting a release of resources Fig. 5 step 405 that release request message decrementing bandwidth at each node in the contingent path to be released is done by a traveling or propagating message going from each node to another node hop by hop. See also Column 10, Lines 36-37 and see Fig. 4 steps 302, 309),

the release request adopted to **(Based on MPEP Section 2111.4[R-3] it is not a positive recitation and the traveling message of Fig. 5 step 405 can be adopted to do the same thing),** cause the release of the restoration path resource allocation without causing a release of reserved resources associated **(Y(J) is reserved resource for restoration path and is maintained – Column 5, Line 66)** with the restoration path and without causing a removal of the restoration path **(See Column 5, Lines 56-67 and Column 11, Lines 64-67 and Figure 7, step 607 where the traveling message of Fig. 5 step 405 is used as a release request and is adopted to cause the release of the restoration path resource allocation without causing a release of reserved resources associated with the restoration path and without causing a removal of the restoration path. This is so because reciting an element is "adopted to" perform a function is not a positive limitation but only requires the ability to so perform. The phrase "adopted to" does not constitute a limitation in any patentable state as illustrated in MPEP Section 2111.4[R-3])**.

In view of the above, having the method of Allen and then given the well established teaching of Voelker, it would have been obvious to one having ordinary skill

in the art at the time of the invention was made to modify the method of Allen as taught by Voelker, since Voelker clearly states in Column 1, Lines 60-67 that the modification results in an added benefit of providing a distributed way of responding to failures in a network in order to establish replacement connections rapidly.

Allen also fails to disclose a release request an RSVP-TE protocol request comprising a shared reservation flag adapted to cause the release of the restoration path resource allocation without causing a release of reserved resources associated with the restoration path and without causing a removal of the restoration path.

Kini discloses a release request an RSVP-TE protocol request **(Kini discloses an RSVP-TE protocol for signaling shared restoration LSPs using RSVP protocol – see last line of abstract on page 1)** comprising a shared reservation flag **(See Shared Resource Ling Group subobject 5 with a flag on page 6 in Section 2.1.3.5)**

adapted to **(i.e. improper according to MPEP Section 2111.4[R-3] as it is not a positive recitation of a limitation and fails to limit the claim)** cause the release of the restoration path resource allocation without causing a release of reserved resources **(i.e. the SRLG is protected and the de-allocation does not cause reservation release on the restoration path as suggested in section 2.1.3.5)** associated with the restoration path and without causing a removal of the restoration path **(Kini's shared resource ling group reservation flag shown in section 2.1.3.5 can be adopted to cause the release of the restoration path resource allocation without causing a release of reserved resources associated with the restoration path and without**

causing a removal of the restoration path because reciting an element is "adopted to" perform a function is not a positive limitation but only requires the ability to so perform. The phrase "adopted to" does not constitute a limitation in any patentable state as illustrated in MPEP Section 2111.4[R-3]).

In view of the above, having the method of Allen and then given the well established teaching of Kini, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Allen as taught by Kini, since Kini clearly states in the abstract in the first page that the modification results in an added benefit of sharing backup links of more than one active path while still guaranteeing recoverability for a set of failures.

Regarding **claim 2**, Allen discloses a method wherein the service path information comprises a list of link used along the service path **(See Allen's paragraphs 26 and 28).**

Regarding **claim 3**, Allen discloses wherein the service path information comprises a list of shared risk link groups traversed by the service path (**See Allen's paragraphs 31 and 38).**

Regarding **claim 4**, Allen discloses a method wherein the label switched path request is an RSVP PATH message **(See Allen's paragraph 25).**

Regarding **Claim 5**, Allen discloses a method wherein the mesh network is an optical network**. (See Allen's paragraph 8).**

Regarding **claim 17**, the combination of Allen, Voelker and Kini discloses a method, further comprising: reserving the resources along the restoration path if and only if the label switched path request comprises a shared reservation flag, the shared reservation flag indicative of whether other flags are needed to support restoration **(Kini teaches a bandwidth request message with a flag set to either cause allocating or de-allocating of bandwidth – see section 2.1.3.5)**.

Regarding **claim 18**, the combination of Allen, Voelker and Kini discloses a method further comprising: allocating the shared resources along the restoration path responsive to a detected failure in the mesh network. **(See Voelker's Figure 6)**

Regarding **claim 19**, the combination of Allen, Voelker and Kini discloses a method wherein the label switched path request comprises a bit flag indicative of whether the label switched path is the service path or the restoration path. **(See Allen Paragraph 38)**

Regarding **claim 20**, the combination of Allen, Voelker and Kini discloses a method wherein the label switched path request comprises a secondary bit indicative

that the restoration path is a backup path for the service path. **(See Allen Paragraph 38)**

9. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Voelker and Kini as applied to claim 1 above, and further in view of Graves et al (US 6, 741, 572).

Regarding **claim 16**, the combination of Allen, Voelker and Kini discloses the existence of shared resources along the restoration path as indicated in the rejection of claim 1.

The combination of Allen, Kini, and Voelker however fails to disclose a method of further comprising removing the reservation of shared resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup.

Graves discloses a method of further comprising removing the reservation of shared resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup. **(See Fig 6B and Column 16, Lines 43-58 shows removing the reservation of shared resources along the restoration path due to an indication of the flag in the error message)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Allen's, Voelker's and Kini's method to incorporate a method of further comprising removing the reservation of shared

resources along the restoration path responsive to an error message flag indicating that the restoration path could not be setup. The motivation is to make bandwidth that cannot be utilized available to other resources on demand as indicated in Graves Column 5, Lines 5-12.

10. **Claims 6, 8, 10, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al (US 6, 442, 132), hereinafter referred to as Burns, in view of Sasaki et al (US Pub. No. 2001/0036153), hereinafter referred to as Sasaki and Kini et al (Sriganesh Kini, Murali Kodialam, T.V. Lakshman, Curtis Villamizar, "ReSerVation Protocol with Traffic Engineering extensions. Extension for Label Switched Path restoration", IETF, April 2001).

Regarding **claim 6**, Burns discloses a method for signaling in a mesh telecommunication network comprising the steps of: sending a first message to the destination node requesting that the destination node bridge and roll the service path and the restoration path **(See Column 4, Lines 1-3 and Column 3, Lines 13-23 discuss a first message with a bridge and roll capability)**; and if a second message is received from the destination node confirming that the destination node has bridged and rolled the service path and the restoration path, halting transmissions along the restoration path **(See Column 4, Lines 11-20 shows the second message which is a confirmation message).**

Burns does not expressively disclose that the second message comprises an object that comprises a code, a first possible value of the code indicative that bridging has been completed, a second possible value of the code indicative that a roll/bridge has been completed, a third possible value of the code indicative that a roll has been completed.

However, Burns clearly shows message exchanges occur between the source and destination in attempting to set up a bridge and roll operation, which is a notoriously known telecom operation. Clearly Burns teaches the second message in Column 4:10 indicating a roll completion and as suggested by Burns in Column 3:55 a bridge has to occur at the destination before the destination rolls and hence the same message can be interpreted to be a bridge and roll completion too. Hence it is the position of the Examiner that the teachings of Burns suggest a 2nd message indicating the completion of roll and roll/bridge operation at the destination. Even though the Applicant claims a 2nd message with a data structure of an object code or flag with different values, the claimed 2nd message simply accomplishes the well known bridge and roll operation. The Applicant's 2nd message is simply a different way of accomplishing the well known bridge and roll operation that is adequately taught by Burns and the Applicant has not established any criticality for the need of such a 2nd message with such an obvious type of flag or code. Therefore it will be obvious to one ordinarily skilled in the art to either use Burn's or Applicant's or any variation of Burn's method to accomplish the same end result, the end result being a bridge and roll operation.

Burns however fails to disclose bridging a signal onto both a service path and a restoration path to a destination node in the mesh network the signal bridged responsive to a request to normalize a restored connection; and sending a third message to the destination node confirming that the connection is normalized

Sasaki discloses sending a third message **(See Paragraph 196, ACK Bridge and Roll Message)** to the destination node confirming that the connection is normalized in a mesh telecommunication network (**See Paragraphs 6 and 90)**. Sasaki also discloses bridging a signal onto both a service path and a restoration path to a destination node in the mesh network **(See Paragraph 195)**, the signal bridged responsive to a request to normalize a restored connection **(See Paragraph 193)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Burn's method to include a "bridge and roll" method with the step of bridging a signal onto both a service path and a restoration path to a destination node in the mesh network, the signal bridged responsive to a request to normalize a restored connection and sending a third message to the destination node confirming that the connection is normalized in a mesh telecommunication network. The motivation being such method provides a non-disruptive service transfer into the Primary path as shown in Sasaki's paragraph 30.

Burns also fails to disclose the second message is a message based on RSVP-TE.

Kini discloses the second message (see section 1 and 2.1.1 discussing an RSVP message used for showing if active or backup is used indicating a roll-over) is a

message based on RSVP-TE **(In section 1 it is shown that the message is dependent on RSVP-TE protocol).**

In view of the above, having the method of Burns and then given the well established teaching of Kini, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Burns'110 as taught by Kini, since Kini clearly states in the abstract in the first page that the modification results in an added benefit of sharing backup links of more than one active path while still guaranteeing recoverability for a set of failures.

Regarding **claims 8**, Burns fails to disclose a method of further comprising the step of verifying the service path prior to normalizing the connection.

Sasaki discloses a method of further comprising the step of verifying the service path prior to normalizing the connection. **(See Figure 14, steps A4, A5, and A6. See Paragraphs 159, 161, 191 and 192)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Burn's method to include a step of verifying the service path prior to normalizing the connection. The motivation being to fully ensure that the primary working that has been repaired is fully operational before switching from the secondary path to the primary path as detailed by Sasaki in paragraph 82.

Regarding **claim 10**, Burns discloses a method for signaling in a mesh telecommunication network comprising the steps of sending a second message to a

source node confirming that a service path and a restoration path have been bridged and rolled **(See Column 4, Lines 1-3 and Column 3, Lines 13-23 discuss a first message with a bridge and roll capability)**, the second message sent responsive to a received first message, the first message sent responsive to a transmission of a signal **(See Column 3, Lines 60-64)**, the bridged signal transmitted responsive to a request to normalize a restored connection **(See Column 3, Lines 13-23 Column 4, Lines 11-20 shows the second message which is a confirmation message).**

Burns does not expressively disclose that the second message comprises an object that comprises a code, a first possible value of the code indicative that bridging has been completed, a second possible value of the code indicative that a roll/bridge has been completed, a third possible value of the code indicative that a roll has been completed.

However, Burns clearly shows message exchanges occur between the source and destination in attempting to set up a bridge and roll operation, which is a notoriously known telecom operation. Clearly Burns teaches the second message in Column 4:10 indicating a roll completion and as suggested by Burns in Column 3:55 a bridge has to occur at the destination before the destination rolls and hence the same message can be interpreted to be a bridge and roll completion too. Hence it is the position of the Examiner that the teachings of Burns suggest a 2nd message indicating the completion of roll and roll/bridge operation at the destination. Even though the Applicant claims a 2nd message with a data structure of an object code or flag with different values, the claimed 2nd message simply accomplishes the well known bridge and roll operation and

cannot be given any patentable weight. The Applicant's 2nd message is simply a different way of accomplishing the well known bridge and roll operation that is adequately taught by Burns and the Applicant has not established any criticality for the need of such a 2nd message with such an obvious type of flag or code.

Burns fails to disclose that the signal bridged onto both the service path and a restoration path to a destination node in the mesh network and if a third message is received from the source node confirming that the connection has been normalized, sending a fourth message along the restoration path freeing resources reserved for the restoration path.

Sasaki discloses that the signal is bridged onto both the service path and a restoration path to a destination node in the mesh network **(See Paragraphs 193 and 195)** and if a third message is received from the source node confirming that the connection has been normalized **(See Paragraphs 154 and 155)**, sending a fourth message along the restoration path freeing resources reserved for the restoration path **(See Paragraph 77 and 195 as it indicates the restoration path is released. However, from the discussion in Paragraphs 222 and 224 require message exchange to setup a path between nodes and inherently will require a release message to tear down a path and release resources)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Burn's method to include the signal bridged onto both the service path and a restoration path to a destination node in the mesh network and if a third message is received from the source node confirming that the connection has

been normalized, sending a fourth message along the restoration path freeing resources reserved for the restoration path. The motivation being such method provides a non-disruptive service transfer into the Primary path as shown in Sasaki's paragraph 30. Burns also fails to disclose the second message is a message based on RSVP-TE.

Kini discloses the second message (see section 1 and 2.1.1 discussing an RSVP message used for showing if active or backup is used indicating a roll-over) is a message based on RSVP-TE **(In section 1 it is shown that the message is dependent on RSVP-TE protocol).**

In view of the above, having the method of Burns and then given the well established teaching of Kini, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Burns'110 as taught by Kini, since Kini clearly states in the abstract in the first page that the modification results in an added benefit of sharing backup links of more than one active path while still guaranteeing recoverability for a set of failures.

Regarding **claim 12**, it is noted that the limitations of claim 12 corresponds to that of claim 8 as discussed above, please see the Examiner's comments with respect to claim 8 as set forth in the rejection above.

11. **Claims 7 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Sasaki and Kini as applied to claims 6 and 10 respectively above, and further in view of Kim et al (Byeongsik Kim, Woojik Chan, Janeho Yoo, "Constraint-

based LSP setup message reversing of CR-LDP", Pages 875-880, IEEE, February 2, 2001), hereinafter referred to as Kim.

Regarding **claim 7**, the combination of Burns, Sasaki, and Kini fails to disclose a method, where in the messages are RSVP messages.

Kim discloses a method, where in the messages are RSVP messages. **(See Page 877, 1st Column, 3rd Paragraph)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Burns', Kini's and Sasaki's method to incorporate a method wherein the messages are RSVP messages. The motivation being to keep the link state information kept in the database of each node up to date and to provide a means to inform each node a feedback to indicate if the path has been setup or not as RSVP messages has such capability as stated in Kim on Page 877, 1st Column, 3rd Paragraph and also in the abstract as well as on the same page in section 2.3 the piggyback mechanism of RSVP is used to accomplish the stated motivation.

Regarding **claim 11**, it is noted that the limitations of claim 11 corresponds to that of claim 7 as discussed above, please see the Examiner's comments with respect to claim 7 as set forth in the rejection above.

12. **Claims 9 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Sasaki and Kini as applied to claims 6 and 12 respectively above,

and further in view of Nagarajan et al (US 7, 099 327), hereinafter referred to as Nagarajan.

Regarding claim 9, the combination of Burns, Kini, and Sasaki fails to teach a method wherein the service path is verified using LMP.

Nagarajan discloses a method wherein the service path is verified using LMP **(See Column 3, Lines 63-67)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Burns', Kini's and Sasaki's method to incorporate a method based on LMP. The motivation being Link Management Protocol (LMP) is ideal and optimal for using it in Optical Networks to compute the optical path as illustrated in Nagarajan's Column 3:63-67. Further evidence of LMP to be optimal is found in Graves et al (US Pub. No. 20020191250) in an optimized switch network as stated in paragraph 206 and Graves shows the higher qualities of LMP in paragraph 213 as it provides control channel management and protection as well as link connectivity verification and fault detection/isolation making LMP an optimal choice in link based networks like optical networks.

Regarding **claim 13**, it is noted that the limitations of claim 13 corresponds to that of claim 9 as discussed above, please see the Examiner's comments with respect to claim 9 as set forth in the rejection above.

13. **Claims 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Sasaki and Kini as applied to claim 10 above, and further in view of Jamieson et al (US 7039687), hereinafter referred to as Jamieson.

Regarding **claim 14**, the combination of Burns, Kini, and Sasaki fail to disclose a method further comprising resolving a determined label contention associated with normalizing the connection via a downstream label assignment for a uni-directional Label Switched Path.

Jamieson discloses shared MPLS network between two or more private networks.

Jamieson discloses a method further comprising resolving a determined label contention associated with normalizing the connection via a downstream label assignment for a uni-directional Label Switched Path. **(See Column 4, Lines 55-67)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Burns', Kini's and Sasaki's method further comprising resolving a determined label contention associated with normalizing the connection via a downstream label assignment for a uni-directional Label Switched Path. The motivation being to minimize contention for resources as disclosed in Jamieson Column 1:30-35.

14. **Claims 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Sasaki and Kini as applied to claim 10 above, and further in view of Berger et

al (Generalized MPLS – Signaling Functional Description, draft – Network Working Group Internet Draft, May 2001), hereinafter referred to as Berger.

Regarding **claim 15,** the combination of Burns, Kini, and Sasaki fail to disclose a method further comprising resolving a determined label contention associated with normalizing the connection via a higher node identification label assignment for a Bi-directional Label Switched Path.

Berger discloses a method further comprising resolving a determined label contention associated with normalizing the connection via a higher node identification label assignment for a Bi-directional Label Switched Path. **(See Page 17, Section 4.2)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Burns', Kini's and Sasaki's method further comprising resolving a determined label contention associated with normalizing the connection via a higher node identification label assignment for a Bi-directional Label Switched Path. The motivation being to minimize contention for resources as disclosed in Section 4.2 of Berger.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HABTE MERED whose telephone number is (571)272-6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung S. Moe can be reached on 571 272 7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Habte Mered/
Examiner, Art Unit 2416

3-15-09

/Aung S. Moe/
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